



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,147	09/07/2005	Takeshi Furuta	SON-2799	2779
23353 7590 08/24/2007 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER LEE, BENNY T	
			ART UNIT 2817	PAPER NUMBER
			MAIL DATE 08/24/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/521,147

Applicant(s)

FURUTA, TAKESHI

Examiner

Benny Lee

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1; 6-17; 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 June 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2817

The disclosure is objected to because of the following informalities: In replacement paragraph [0007], third line therein, note that “signal” should be rewritten as --signals-- for an appropriate characterization. In replacement paragraph [0044], note that “capacitors C5 and C6” (as amended) does not appear to be consistent with the labeling in amended FIG. 6 (i.e. (C5, C6) in Fig. 6 were changed to --(C1, C2)--, respectively). Clarification is needed. At page 12, line 11, note that “two series A and B” should be rephrased as --two series of components (i.e. 13, 14 and 15) with “A” and “B” designations, respectively connected at a-- for clarity of description. Appropriate correction is required.

The disclosure is objected to because of the following informalities: Note that the following reference labels need to be described with respect to the specification description of the corresponding drawing figure: FIGS. 2, 3, 4, 5, 6, 11 (RF PATH); FIGS. 2, 3 (11); FIGS. 2, 3, 5 (12); FIGS. 2, 3, 5, 6, 11 (13); FIGS 2, 11 (L1, L2, C); FIGS. 6, 8 (A); FIG. 8 (Q101, Q102, L101, AX); FIG. 9 (A=ON, A=OFF); FIG. 10, all reference labels therein. Appropriate correction is required.

The drawings are objected to because of the following: In FIG. 8, note that reference label --L104-- needs to be provided such as to be commensurate with the original description at page 10, line 30; In FIG. 10, note that reference labels --C1-- & --C2-- need to be provided such as to be commensurate with the original description at page 11, line 27 and note that the amended labels (C1, C2) do not appear commensurate with the description of “capacitors C5 and C6” at replacement paragraph [0044] of the amended specification.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “shunt paths” being “on a same

Art Unit: 2817

substrate” (i.e. claim 9) & the “IC bonding wire” (i.e. claim 15), respectively must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification needs to provide a description that the “shunt paths” are “on the same substrate”, such as recited in claim 9.

Claims 1; 6-17; 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 6, 17, 18, note that it is unclear which one of the “active elements” is intended by the respective recitation of “said active element”. Clarification is needed.

In claims 6, 7, note that it is unclear which one “transistor” of which one “shunt path” is intended by the recitation of “said ... transistor”. Clarification is needed.

Art Unit: 2817

In claim 11, note that it is unclear how each recitation of “an inductor” relates to each other (e.g. the same inductor in each shunt path, different inductors for each shunt path, etc).

Clarification is needed.

In claim 12, note that it is unclear how “an capacitor” would related to the earlier recitation of “two capacitors” (e.g. a part thereof, separate therefrom, etc). Clarification is needed

In claim 13, note that it is unclear how each recitation of “a capacitor” relates to each other as well as the earlier recitation of “two capacitors” (e.g. same capacitor in each shunt path, different capacitors for each shunt path, etc). Clarification is needed.

In claim 18, last paragraph, note that it is unclear whether for the “second state”, the recitation that “each pair of shunt paths provides a serial resonance circuit ...” would be an appropriate characterization. It should be noted that from the general embodiment of the invention (i.e. see FIG. 6), when transistors (Q1, Q2) are not turned on (i.e. corresponding to the claimed “second state”), then only one of the pair of shunt paths {i.e. the shunt path including capacitor (C) and inductor (L2)} provides serial resonance while the other of the pair of shunt paths {i.e. the shunt path with inductor (L1)} is not connected to the RF path, by virtue of the transistor (Q1) not being turned on, thereby apparently contradicting the claimed recitation that “each shunt path provides serial resonance”. Clarification is needed.

The following claims have been found to be objectionable for reasons set forth below:

In claim 1, line 1, note that “characterized by” should be rephrased either as --characterized by-- or --comprising-- for an appropriate apparatus characterization.

In claim 8, line 2, note that “made” should be rewritten as --comprised-- for an appropriate apparatus characterization.

In claim 9, line 2, note that “formed” should be rewritten as --disposed-- for an appropriate apparatus characterization.

In claims 12, 14, line 3 of each claim, note that --said-- should be inserted between “both” and “one” for an appropriate characterization.

In claim 15, note that “formed from” should be rewritten as --comprising-- for an appropriate characterization.

In claim 18, lines 2, 3, note that “an active element and an impedance element” should be rephrased as --a respective active element and a corresponding impedance element-- for an appropriate characterization; lines 4, 5, note that “said active element being comprised of a transistor serially connected between two capacitors” should be rephrased as --each said active element being comprised of a respective transistor serially connected between two corresponding capacitors-- for an appropriate characterization.

Applicant's arguments filed 18 June 2007 have been fully considered but they are not persuasive.

With regard to the description of certain “redundant” reference labels in different drawing figures, applicant's comments have been considered. In light of applicant's comments, the examiner suggests that applicant provide an explicit statement in the specification denoting that the same reference label appearing in different drawing figures refer to the same features and may not be described in detail for all drawing figures. This should obviate the majority (if not all) of this particular objection.

With respect to the drawing objection regarding the “same substrate” and the “bonding wire”, the examiner is of the opinion that since these are particular physical realization of the

Art Unit: 2817

invention, and the disclosure otherwise described the invention in an electrically schematic format, the presence of these physical realizations are indeed necessary for a complete understanding of applicant's invention.

Claims 1; 6-17; 18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

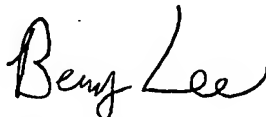
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

B. Lee


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817